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Taking Care of the Future?

The complex responsibility of education & politics

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In one way or another, all the essays in this volume address the question of how it is possible to take up an affirmative orientation to the future when, as Paul Cilliers writes in the foreword to this volume, "we have to make choices which cannot be reduced to calculation alone." If we *care* about the future, it matters very much that we do the "right" thing… it is important that we act in a way that will indeed positively influence the future, rather than that we act in a way that will have a negative effect or that we refrain from acting at all (which is nevertheless still taking a position that can have a negative effect). But if we can no longer know, in rational or calculable terms, what the "right" thing may be, then how should we act? What should we do? Under these conditions what is the meaning of normativity? How do we make sense of "*should*"? In this final essay I argue for the necessity to engage, *in complex terms,* with the question of how it is possible to adopt an affirmative orientation to the future. I use the politically and ethically problematic notion of "care" as a "springboard" for this discussion precisely because it appears to me to "take place" at the "interface" between complexity theory, political theory and ethical theory.

In complexity terms the notion of care can be interpreted as that "Prigoginian moment of freedom" in a complex process when the system is destabilised to the point of bifurcation. At this point the system is faced with an *undecidable* choice between several equally possible "ways forward" and must "choose" (Prigogine, 1997, p.68) one of the possible branches available. Since the "decisions" that take place at such moments influence the future states of the system, these "decisions" can be said to be significant or *meaningful* in the "life" of the system. Note that meaning, here, arises as a consequence of choice/freedom—which is given ontological status—rather than being something that is already present to guide choice. Since it matters to the system which of the available branches is chosen, the "Prigoginian moment of freedom" within which such a choice takes place, can be interpreted also as a "moment of care." The meaning of "care" in this context is close to the meaning of *Sorge* (care) in Heidegger's *Being and Time* (see

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Sandbothe, 2001, for a detailed discussion of the resonances between the thought of Prigogine and Heidegger).

In ethical terms the notion of care has been given a central place in both the feminist "ethics of care" (see e.g., Gilligan, 1982; Noddings, 1986; Held, 2006) and Hans Jonas's "ethics of responsibility for the future" (Jonas, 1984). There have also been attempts to extract an ethics from Heidegger's notion of *Sorge* (see, *e.g.,* Miyasaki, 2007; Olafson, 1998; Guignon, 1993) although it is also argued that no such ethics can be derived from this concept (see Paley, 2000; Horrocks, 2004). Aristotle, too, has been described as an early advocate of an ethics of care (e.g., Curzer, 2007) and even Kant's ethics, which is usually framed in opposition to the ethics of care, has more recently been described as an ethics of care (see Paley, 2002). Derrida's work on the concept of justice (which is normally opposed to the concept of care) has also been framed in terms of care (Campolo, 1985).

In contrast to its enthusiastic (but also contentious) embrace by ethical theory, the notion of care has a rather prickly relationship with politics. Nevertheless, there is certainly no shortage of engagement with this concept in political theory. In political terms, care is generally discussed as a form of power and either opposed to Foucault's ethics of freedom, which specifically opposes the shared human essence implied by the feminist "ethics of care" (see, e.g., Sybylla, 2001; Deveaux, 1995) or used to outline a new form of political theory (see, e.g., Engster, 2004; 2009). At the least some authors have tried to reposition the feminist ethics of care in more political terms (Tronto 1993; 1996; Held, 2006). The main political difficulty with the notion of care is that it seems always to imply a teleological or ends-driven understanding of action which requires that we know in advance what it is we are supposed to be doing to act in an ethical manner. This positions the notion of care firmly in the arena of normative ethics, which is a specific target of critique in political theory.

What is of particular importance and interest for the purposes of this essay, is that a teleological or ends-driven understanding of action can be shown, without exception, to be underpinned by an instrumental logic which relies absolutely on the idea of rationally informed choice. If we can no longer rely on rationally informed choice to make "caring" decisions about the future—because our decisions cannot be reduced to calculation alone—this has tremendous implications not only for normative ethical and political theory, but also for normative education, and indeed for any practice that directs itself towards some *preconceived* notion of "good."

The problem that complexity theory raises for the notion of care does not relieve us of responsibility to "take care of the future." It suggests, rather, that it is necessary to engage with this responsibility in a different way. It is necessary to engage with it in *complex* and open-ended terms rather than only in *instrumental* and teleological terms. This, however, is a rather paradoxical assignment. The task of this essay is to explore the dimensions of this paradox with a view to understanding what an affirmative orientation towards the future might mean for education and politics in the absence of a teleological theory of action.

The ethics of Hans Jonas provides a useful entry point for this discussion as it provides an initial framework within which concepts such as freedom, care, knowledge, power, responsibility *and futurity*—these being the main themes of this essay—are placed in relation to each other in the context of ethics. Even although Jonas's ethics is normatively grounded and hence teleological, his positioning of these concepts relative to each other provides a clear articulation of the paradoxical nature of the assignment to take care of the future. It is necessary to enter this paradox in order to do justice to the question of what a non-teleological but affirmative orientation to the future might mean.

Taking Care of the Future. A Paradoxical Assignment

In *The Imperative of Responsibility,* Jonas (1984) develops an ethics in which the notion of responsibility assumes a central position. This ethical theory is an extension of his "philosophy of life" (Jonas 1966), which gives the notion of freedom (and by implication value and meaning) ontological status in the organisation of *all* organic life (not only human life). In this regard, Jonas's philosophy of life has much in common with Prigogine's ontological positioning of freedom *within* the structure of matter (although Prigogine extends freedom to the inorganic world as well). Jonas argues that without freedom, life would not be possible. To elaborate on this a little, Jonas defines life as an active resistance of death (which will inevitably engulf it) or, as a striving to build and perpetuate a self-distinct physical unity (organisation) which is committed to maintaining its independence from the equalising physical forces of the non-living world. The problem, however, as Jonas points out, is that "[t]he privilege of freedom carries the burden of need" as the privilege emerges from the paradoxical fact that living substance has segregated itself "from the very matter which is yet indispensible to its being" (1966, p. 4). To maintain its being, and its freedom,

> the living form must have matter at its disposal, and it finds it outside itself, in the foreign 'world' … Its want goes out to where its means of satisfaction lie: *its self-concern, active in the acquisition of new matter*, is essential openness for the encounter with outer being" (1966, p. 84, my emphasis).

I remain alive "by the *effort* I must make to overcome the resistance of worldly matter in my acting and to resist the impact of worldly matter upon myself" (*ibid*., p. 23, emphasis original). In this sense, Jonas is arguing that value-imbued purposiveness is necessary in order for life to exist. It is the condition of possibility of life. Without the possibility of purposeful choice, life is unable to "resist the impact of worldly matter" upon its being. It dies. It is upon this "precarious, vulnerable, and revocative character, the peculiar mode of transience of all life" (1984, p. 98) that Jonas begins to build an ethics in which the notion of responsibility assumes a central position.

To develop this ethics, Jonas begins by distinguishing quite sharply between what he calls formal responsibility, and substantive responsibility. Jonas describes formal responsibility as "retroactive" in that it is a form of causal power that is

attributed after the fact. This form of responsibility renders an agent responsible for deeds done regardless of the *content* of such deeds. Whether the effects of such deeds are positive or negative, we are responsible anyway. This kind of responsibility is "the mere formal burden of all causal acting" (1984, p. 92). Jonas is not that concerned, however, with this "empty" form of responsibility. He focuses his attention, instead, on substantive responsibility which he analyses as a future orientated form of responsibility.

Jonas describes substantive responsibility as taking the form of being committed in advance to carrying out particular deeds that will affect the future. In this case the content—or substance—of the deeds done *does* mater. In this sense responsibility is assigned before rather than after the fact and Jonas describes it as a form of power that "*obligates* [an agent] to actions not otherwise contemplated at all" (*ibid*., my emphasis). It is "the forward determination of what is to be done" (1984, p. 92). Jonas argues that this future orientated facing or substantive form of responsibility applies only to life itself because

> what time cannot affect and to which nothing can happen is an object not of responsibility but of emulation. The eternal has no need for the former. … Only for the changeable and perishable can one be responsible, for what is threatened by corruption, for the mortal in its mortality. (*ibid*., pp. 125-126)

In this sense, responsibility implies a commitment to ensuring the ongoing *existence* or at least the *quality of existence* of other living beings. It is a form of *care* for the transient and perishable. This form of responsibility, as Jonas points out, is a "nonreciprocal relation of power" (*ibid*., p. 94).

> The well-being, the interest, the fate of others has, by circumstance or agreement, come under my care, which means that my control over it, involves at the same time my obligation *for* it. … A distinct disparity of power or competence belongs to this relationship. (*ibid*., p. 93. emphasis original)

In the human realm, Jonas suggests that the "natural responsibility" of parents for children and the "freely-chosen responsibility" of the statesman for the common cause blend into an "integral and paradigmatic representation of the primordial phenomenon of responsibility" (1984, p. 98). In both examples responsibility exists as a definable, nonreciprocal relation of power. Indeed, Jonas argues that "substantive" responsibility cannot be understood outside of unequal power relations because if we have no power to affect the object of our responsibility, it cannot command us to act in its interests. Substantive responsibility is therefore inseparably linked to the power we have over the object of our responsibility. Such power derives, at least in part, from *knowledge* for we can only act in the interests of the object of our responsibility—i.e., ensure its preservation or care—when we have sufficient knowledge and understanding of *what it is* that may facilitate its ongoing well-being. To be responsible, in this sense, is to act in accordance with our *knowledge and beliefs* about the needs of our charge. Under these conditions, this form of responsibility is inherently normative. Knowledge informs us of how

we *ought* to act to bring about those outcomes we believe *should* occur. For this reason Jonas insists that substantive responsibility is "a function of power and knowledge" (1984, p. 123).

In as much as it is concerned with an obligation to the *well-being* and *care* of others, Jonas's conceptualisation of responsibility might be equated with the feminist ethics of care which began to appear in the English speaking world (e.g., Gilligan, 1982) at the same time as Jonas was developing his ethics of responsibility (the *Imperative of Responsibility* was originally published in two parts in German in 1979 and 1981). There are however, some important differences between these two ethical positions.

While both ethical positions are concerned with the affirmation of life, the understanding of what constitutes "life" is fundamentally different. Jonas draws on an understanding of life as purposiveness *itself* (in contrast to the more usual understanding of life as preceding purpose: that is, life must first be "there" before it can "have" a purpose). For Jonas, since life is already purposive, it is also already value-laden which means "care" is always already present.

This is not so for feminist care theorists who, for the most part, posit care as something that is initially in deficit and which must therefore be cultivated if we are to become ethical. In other words, for feminist care theorists, care is the end point of ethics, whereas for Jonas it is already there at the start. What this means is that the primary focus of the feminist ethics of care is the specification of what it means to "be caring." Although there is some disagreement amongst care theorists about what, precisely, constitutes "care," such definitions generally include "feminine" qualities such as attentiveness to need, responsiveness, trust (Held, 2006), understanding, relatedness (Tronto, 1993); "absorption" in the other (Noddings, 1986) and so on. These *qualities* are then posited as ethical aims—specifications of how we *should* act in relation to others—which implies that forms of action such as "distancing," "justice" and "rationality," that do not include some level of "feminine care" are somehow ethically *inadequate*.

Jonas makes no such claims about what, precisely, constitutes a "caring" action for he does not posit care as the end point of ethics. He posits care at the very beginning of the ethical process; as the condition of possibility of responsibility, and responsibility as the *obligation* to act in the interests of another. Jonas does not specify precisely what kind of action we should perform in order to act in the interests of another. He suggests only that ethics becomes possible when we are called to act in the interests of others *over whom we have power*. For Jonas

> ethics is for the ordering of actions and for regulating the power to act. It must be there all the more, then, the greater the powers of acting that are to be regulated; and as it must fit their size, the ordering principle must also fit their kind. Thus, novel powers to act require novel ethical rules and perhaps even a new ethics. (1984, p. 23)

But Jonas's ethics of responsibility can also be differentiated from the feminist ethics of care in another sense (although not unrelated to the above); one which is perhaps more pertinent for the purposes of this essay.

Jonas (1984) argues that we are now at a point in history where modern technology has so enhanced human power that the scope of present-day action reaches far beyond our own contemporaries. We now have power "over matter, over life on earth, and over man himself; and [our power] keeps growing at an accelerating pace" (*ibid*., p. ix). As a result, an ethics concerned with "doing right what [has] to be done *now*" (*ibid*., p. 123, my emphasis), which has been the focus of all previous ethics (with the exception of Marxist ethics) *is no longer sufficient*. He argues that what is needed today is "an ethics of responsibility for and to a distant future" (*ibid*., p. 22) which he also refers to as an ethics of "responsibility for the coming" (*ibid*., p. 124).

While Jonas acknowledge that this ethics has some similarities with Marxism, which is also concerned with the distant future, he also sharply differentiates his ethics from Marxism by arguing that his imperative of responsibility is *open ended* in contrast with the Marxist imperative which is concerned with final ends, or Utopia. For Jonas, responsibility for the future is an obligation or duty *that has no terminus*. It is responsibility for life *itself* "in its ever-new, always unprecedented productions, which no knowledge of essence can predict" (1984, p. 126). Jonas wants to ensure that there will *be* a future in which life is still possible. It is this new ethics of responsibility for and to the interests of a distant future, that presents Jonas with the paradox that will be addressed in the reminder of this essay. The difficulty or paradox is that of how one can be *obligated* to the distant future when

> … only *present* interests make themselves heard and felt and enforce their consideration. . . . But the *future* is not represented, it is not a force that can throw its weight into the scales. The nonexistent has no lobby, and the unborn are powerless. Thus accountability to them has no political reality behind it in present decision-making, and when they can make their complaint, then we, the culprits, will no longer be there. (1984, p. 22, emphasis original).

If we take seriously that we cannot know in advance what the future will be like then we also cannot know in advance (even in principle) what its "needs" will be. And if we cannot know what the needs of the future will be, then we cannot act in a way calculated to meet those needs. How, then can we "take care" of a future that is radically open? It is to this question I turn next.

Taking Care of the Future by Controlling It

In their book *Breakpoint and Beyond: Mastering the Future* (1992) George Land and Beth Jarman suggest that one way of "taking care of the future"—in the face of radical uncertainty about it—is to act in a way that we think will meet the needs of an *imagined* future. We can, in other words, imagine what a "good" or "healthy" future will look like, and then act in a way calculated to facilitate or bring about this ideal. Such imaginings form the basis of what they describe as a "Creative Worldview" (p. 98) approach to vision, strategy and planning where the future is "channelled" (my word) in the direction imagined for it through attempts calculated to engineer a *preferred* future. This not only decreases the uncertainty of

the future but also attempts to ensure that *a certain kind* of future takes place. It can be argued that to *not* try to influence the future in this way—to *not* care enough about what happens—is tantamount to neglect. Steering the future towards a preferred state enables humankind to take control of their own destiny rather than leaving it to the vicissitudes of fate. In this sense caring for the future is an important form of human agency.

Land and Jarman argue that to channel the future in this way it is first necessary to develop a *shared vision* of the future. Although Land and Jarman argue that no-one with a compelling purpose and great vision knows exactly how that vision will be achieved it is nevertheless achieved as the focus produces a certain sensitivity to opportunities presented. This enables people to make the most of surprise, serendipity, and the unexpected. Once such a vision for the future is established it acts as an "invisible magnet" (1992, p. 109) pulling the present towards itself. They give the example of John F. Kennedy holding out the vision of landing a man on the moon which, so they argue, inspired an entire nation to develop the technological capability for manned space flights (*ibid*., p. 176). Land & Jarman argue that that a compelling shared purpose energises life. Purpose extracts the most important bits from the background noise and focuses us on something clear.

In his book *Emergence* (1998), John Holland describes much the same process of complexity reduction taking place when we develop scientific models and theories. He suggests that making a "well conceived" model means (simply) "extract[ing] the regularities from incidental and irrelevant details" (Holland, 1998, p. 4). In his words: "Shearing away detail is the very essence of [scientific] model building. Whatever else we require, a model must be simpler than the thing modelled" (Holland, 1998, p. 24).

For Land & Jarman as well as for Holland it is only by reducing the complexity of the present, by sorting the "important" bits from the "noise" and in this way controlling what does (or can) and does not (or cannot) take place, that we are able to guide the future towards a shared vision: some predetermined or "preferred" state that we envision for it.

Regardless of how morally motivated this attitude towards the future may be, it completely fails to address the ethico-political problem that arises whenever attempts are made to control the future in this way. George Orwell's futuristic novel *Nineteen eighty-four* exemplifies the potential harm in this kind of imagining ("coincidentally," this date, 1984, is the date Jonas's *Imperative of Responsibility* appeared for the first time in English). Orwell meant it to draw out the logical implications of what can happen when we extend the ideas of the ruling class ideology into the future (see Shklar, 1985, for an extended discussion on this). The problem is, and always has been: who is and who is not included in the "we" that decides what the future will be like? This is the central problem of political decision making. How then is politics supposed to deal with this?

Who Controls the Future? Politics and the Question of Freedom

Within the realm of the political, ethical questions will always arise about which or whose desired future we should be caring about and hence trying to bring into existence. The idea of democracy suggests that it is possible, somehow, to resolve such questions through structured forms of joint decision making. However, no matter whether we arrive at such decisions (about which preferred future should be actively pursued) through (i) *a populist model* (where elected officials enact or incite mass preferences), (ii) *a deliberative model* (where decisions are arrived at through rational, deliberative debate about different preferences) or (iii), *a pluralist model* (where the preferences chosen are the result of a struggle amongst organised interests), or any other so-called democratic form of decision making, it is always the case that the decisions that *are* made—indeed *must* be made—could always have been other than they were. Other decisions *could* have been made. The very fact that a decision can be made in the first place—i.e., that there *is* a choice between alternatives—implies that the alternatives are real alternatives: they are in fact *undecidable*, in a Prigoginian sense. Derrida (1992) articulates the undecidability of decisions quite succinctly in the following remark

> When the path is clear and given, when a certain knowledge opens up the way in advance, the decision is already made, it might as well be said there is none to make. (1992, p. 41)

If the way is clear from the outset, there *is* no freedom as there is no necessity for a decision. In political decision making, what this means is that there is *no rational ground* for choosing one way forward above another. Nevertheless we have to choose *because* w*e cannot go in two directions at the same time.* When freedom is understood in a Prigoginian and Derridean sense (as a *bifurcation* or moment of *undecidability*) then political decision making, as Rancière (2010) has argued, is a mode of action that takes the form of *dissensus* rather than *consensus*. Political decisions necessarily exclude and divide. For Rancière, there is no possibility to remove dissensus from politics (even "democratic politics) because dissensus—the idea that there is no rational ground for political decision making—is the very structure or ground of politics itself.

> The core of the problem, as I see it, is that democracy is neither a form of government nor a form of social life. Democracy is the institution of politics as such, *of politics as paradox*. Why a paradox? Because … the very ground for the power of ruling is that there is no ground at all. (Rancière, 2010, p. 50, my emphasis)

> [Democracy] is a supplementary, or grounding, power that at once legitimises and de-legitimises every set of institutions or the power of any one set of people." (*ibid*., p. 52).

For Rancière, freedom (in a Derridean/Prigonian sense) is the condition of possibility of democracy, not its end. As this kind of freedom opens the possibility

of *alternate* futures, political decision-making itself can be understood as a necessarily normative act because such decisions can usher people in only one of these alternate directions. As we cannot move in all directions at once, political decisions have the effect of reducing the complexity of the present by channelling the present in a particular direction. Politics is normative precisely because it cannot avoid deciding on *one* way forward, which necessarily closes *other* ways forward.

Since political decisions cannot take place without a certain degree justification (even though there are no rational grounds for choosing one justification above another), and since such justification entails a degree of representation which is a form of envisioning, we must concede that deciding on a particular way forward entails a certain amount of envisioning, of *precisely* the type that Land and Jarman (1992) uphold. However we arrive our vision, such vision appears to be necessary for political action. As Rancière remarks

> The essential work of politics is the configuration of its own space. It is to make the world of its subjects and its operations seen. (2010, p. 37)

But this does not mean *any* vision will suffice. It means, instead, that because the adoption of a particular framework or vision can never be justified absolutely (there are no rational grounds for such justification), that we cannot take any of our visions for granted. We cannot enter into political decision making (which is always a form of complexity reduction) with certainty.

Understanding that politics is *always* a form of complexity reduction which distributes power in particular (unequal) ways *no matter how we arrange the system*, means we can begin to think of the political as a space which necessitates unremitting critical reflexivity towards our own political decisions (or visions) and practice/s (Amin & Thrift, 2005; Mouffe, 2005). But that is not the end of the story as politics entails more than simply the endless redistribution of power within an economy of the same, which is an economy of the past. Politics is also about envisioning *better* ways of doing things than are currently in the world. That is, it also attempts to take up an affirmative orientation *to the future*. This brings me to the final (for this essay) way of "taking care of the future."

Taking Care of the Future by Experimenting with It

What is important about Rancière's understanding of democracy as *beginning* with freedom (rather than making freedom the goal, as is the case with liberal democracy), is that it allows us to see that if we keep freedom open, politics (or democracy) remains possible. When freedom is no longer there, politics (the possibility for alternate futures) is no longer possible. With Rancière's politics, the long-term future is radically open because as long as freedom is there, it is possible to imagine and pursue alternate futures.

This, however, does not change the fact that the futures we pursue through the decisions we make are *envisioned* futures. That is, they are instrumental, normative, and take up a fundamentally dominating attitude toward the future. Any

envisioning, no matter how short term or revocable, is an attempt to control the future because it installs a telos which instrumentalises our actions. For this reason it could be argued that *merely* keeping open the possibility for *different* visions for the future is insufficient as a basis for claiming responsibility for the future because it still does not allow the future to speak for itself. Installing a vision is a form of denial of the unknown, or incalculable, and hence a denial of the future *in its radical futurity*. Since we cannot take a position of responsibility and care towards something whose existence we deny, such an attitude towards the future can still be considered to be irresponsible or uncaring. As Derrida points out,

> when a responsibility is exercised in the order of the possible, it simply follows a direction and elaborates a programme. It makes of action the applied consequence, the simple application of a knowledge or know-how. It makes of ethics and politics a technology. No longer of the order of practical reason, it begins to be irresponsible. (1992, p. 45)

It may be, however, that with political decisions we can do no else. As I have already mentioned, *politics is normative precisely because it cannot avoid deciding on one way forward, which necessarily closes other ways forward*. If this is the case then something else is also required if we are to be responsible for the radical alterity of the future.

This "something else" is explored in different ways in the political theory of Rancière, Mouffe, Badiou, Arendt, Agamben, Derrida and others. The basic idea is that "envisioning the future" does not necessarily have to be constructed wholly within the economy of the past. When we project the "good" ideas of the past forward, in an attempt to *control* the shape of future, we cannot escape the political impasse that arises when we try to decide whose "good ideas" are the "best." The spectre of Orwell's *Nineteen eighty-four* provides a warning about this kind of projection.

A different kind of envisioning is required. An envisioning of the type that somehow enables "the voice of the future" to manifest (although the future can never speak entirely in its own voice). This kind of envisioning can emerge from sensitive and tentative experimentation with *what is not yet possible*. I believe Derrida provides the most concise articulation of this idea in the following statement (an extension of the quote given earlier):

> When the path is clear and given, when a certain knowledge opens up the way in advance, the decision is already made, it might as well be said there is none to make: irresponsibly, and in good conscience, one simply applies or implements a programme. *Perhaps, and this would be the objection, one never escapes the programme.* In that case, one must acknowledge this and stop talking with authority about moral or political responsibility. The condition of possibility of this thing called responsibility is a certain experience and experiment of the possibility of the impossible; the testing of the aporia from which one may invent the only possible invention, the impossible invention. (1992, p. 41, my emphasis, original emphasis removed)

Derrida, as I have explained elsewhere (Osberg & Biesta, 2007), is working, so I believe, with a "logic" of emergence which, in many respects can be considered to be a "deconstructive logic." This "logic" can never be formalised because its movement unpicks its grounds. Every time it "looks back" at itself (to formalise itself) the very process of looking back has moved it forwards so that it is no longer explainable in terms of what it was. Derrida's deconstruction—which I would speak of as the "logic" of emergence, takes the form of a contradiction or paradox. Derrida enters the paradox itself—the Prigonian bifurcation or "moment of freedom" which is a moment of undecidability—and *there* finds a form of responsibility that is justice as well as care for the future.

Derrida's work suggests that to act responsibly towards an incalculable future—to care enough to do justice to the future—it is first necessary to take seriously the incalculability of the future. Taking the incalculability of the future seriously does *not* mean that we should no longer try to influence the future by making decisions about it, that we should passively accept whatever comes our way. And it does *not* mean we must instead make do with temporary visions (although this helps). It means, rather, that there is *more* to taking care of the future (acting responsibly towards it) than merely developing a vision (even a *pro*visional one). This is where the "logic" of emergence or deconstruction becomes helpful. This is because an emergentist understanding of process, which is *not* orientated towards control and closure (choosing what to do) but towards the invention of the new (putting things together differently), presents us with the possibility to think about the future in non-teleological terms.

Emergence can be understood as a kind of normative force in that it guides in a way that is non-arbitrary, based on the rules of the past, which is nevertheless non-normative in that it exceeds the rules of the past. It does this by using the rules of the past in an experimental way to create something radically new, something which is beyond the rules, beyond what we can calculate as being possible. This is Derrida's the "experience and experiment of the possibility of the impossible" (1992, p. 41). I would argue that because it uses rules/norms to exceed rules/norms, the "logic" of emergence can therefore be understood as a kind of "non-normative normativity." I would also argue that it is only through the "logic" of emergence, understood as the "experience and experiment of the possibility of the impossible" that we are capable of "taking care of the future." I do not mean to suggest, however, that experimenting with the possibility of the impossible is a *new* means of taking care of the future, one that should replace all the other forms. I would suggest, rather that this kind of care and responsibility for the future *already inhabits* the other understandings of care and responsibility for the future discussed in this essay, *and fulfils their ethical requirements*.

It certainly satisfies Jonas's understanding of responsibility for the future for it ensures that the future "in its every ever-new, always unprecedented productions, which no knowledge of essence can predict" (Jonas 1984, p. 126) can still take place. It also puts in place a vision for the future (as I have argued, we cannot do without such, when making political decisions) albeit *a radically new one*, which means we are still taking an active interest in the future, *choosing* our future rather

than abandoning ourselves to the vicissitudes of fate. It also enables a form of politics which goes beyond the discourse of rational justification, which can only end in impasse or domination as the rational grounds for the justification of our political choices are swept away.

This solution therefore appears to "solve" the paradox of what it means to be responsible for the future. It does not, however, dispense with the notion of paradox itself, which is now shifted to a position *inside* the process of "taking care of the future." Paradox now appears as the condition of possibility of taking care of the future instead of something that might get in the way of it.

One question that remains, however, which is of substantial importance. Where can this understanding of politics can actually take place? Where is there room for paradox *per se*? Where is the "democratic space," *with paradox at its heart*, that allows people to engage with "the experience and experiment of the possibility of the impossible"? While Rancière (2010) and Mouffe (2005) argue that the kind of political interaction they describe must necessarily take place amongst "the people," they also acknowledge that this kind of engagement is *not yet* taking place amongst "the people" (hence their theorising about it). It has not yet been taken up in a general sense. Moreover, *to put in place* a political regime which would *demand* this form of political interaction would be to do precisely what Rancière (2010) warns against: the implementation (enforcing) of such a politics would, in effect, remove freedom of choice and hence stifle the very possibility of the political. I believe at this point it is necessary to turn to education, for it may be that the only place in which an experimental engagement with the possibility of the impossible—or with "politics as paradox"—*can* take place is in the *educational domain*.

Educational Democracy?

I do not wish to suggest that education can teach people *about* this kind of politics, this kind of responsibility, this kind of "care for the future." I would argue, instead, that education can be understood *as* (this form of) politics *itself*. To say this differently, I would argue that *the political domain* arises when we think in terms of the instrumental logic of complexity reduction (we must reduce the complexity of the present if we are to make decisions about the future, *we have to choose*, but this creates differences which are political) while *the educational domain* arises when we think in terms of the emergentist "logic" of complexity. Education *can* be a place of paradox, a place of experimentation with the possibility of the impossible precisely because education *does not* have to make political decisions about the future.

While politics is, in principle, totalising, dividing, spatial (applying *certain* rules and *not others* to the future, no matter how temporary or contingent these may be), education *can be* in principle inventionalistic (using the interplay of otherness to arrive at new rules). Inventing new rules does not mean dropping all prior values and throwing away the lessons of the past. It means, rather, using the lessons of the

past to invent something radically new; something which might accompany us into the future (and also which might not).

I would argue, therefore, that when we are dealing with the political it may be helpful to employ the emergentist logic of complexity, as manifest in the realm of education, in conjunction with the instrumental logic of complexity reduction (the domain of the political *proper*). This is because, in the absence of education—understood as the exposure to what is different, strange and other, *such that new ways of doing things than are currently found in the world can actually be brought into being*—politics becomes unjust as it is unable to rethink itself.

In this sense the logic of complexity can inform an "edu-political" theory that is based not on the moral convictions of some, but on the idea of an experiment with the possibility of the impossible (i.e., an experiment with that which cannot be conceived as a possibility). What we have, then, is an *educational* form of politics, or a *political* form of education. Whatever the case, it might go by the name of educational democracy (rather than, e.g., democratic education).

I believe this conception of education—which does justice *not only* to the complexity *of education* itself but also to the complexity of ethics and politics—*already exists* in some poststructural writings about education (e.g., Ellsworth, 1989; Lather, 1991, Britzman, 2006; Biesta, 2006; 2010, to name only a few). What *does not yet exist* is a general awareness of the importance and necessity of these understandings of education for the practice of "taking care of the future" in these complex cosmopolitan times. I hope this discussion may have gone some way towards making this case.

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